RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	/o/089,392A
Source:	1FW,16
Date Processed by STIC:	11/15/04

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 11/15/2004

PATENT APPLICATION: US/10/089,392A

TIME: 13:53:32

Input Set : A:\00229806.txt

```
3 <110> APPLICANT: DECKWER, WOLF-DIETER
         MUELLER, ROLF-JOACHIM
         KLEEBERG, ILONA
 5
 6
         VAN DEN HEUVEL, JOOP
 8 <120> TITLE OF INVENTION: ESTER-GROUP-CLEAVING ENZYME FROM THERMOMONOSPORA FUSCA
10 <130> FILE REFERENCE: 930008-2069
12 <140> CURRENT APPLICATION NUMBER: 10/089,392A
13 <141> CURRENT FILING DATE: 2002-07-10
15 <150> PRIOR APPLICATION NUMBER: PCT/EP00/07115
16 <151> PRIOR FILING DATE: 2000-07-25
18 <160> NUMBER OF SEQ ID NOS: 3
20 <170> SOFTWARE: PatentIn Ver. 3.2
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 261
24 <212> TYPE: PRT
25 <213> ORGANISM: Thermomonospora fusca
27 <400> SEQUENCE: 1
28 Ala Asn Pro Tyr Glu Arg Gly Pro Asn Pro Thr Asp Ala Leu Leu Glu
   1
31 Ala Ser Ser Gly Pro Phe Ser Val Ser Glu Glu Asn Val Ser Arg Leu
                                    25
34 Ser Ala Ser Gly Phe Gly Gly Gly Thr Ile Tyr Tyr Pro Arg Glu Asn
37 Asn Thr Tyr Gly Ala Val Ala Ile Ser Pro Gly Tyr Thr Gly Thr Glu
                            55
40 Ala Ser Ile Ala Trp Leu Gly Glu Arg Ile Ala Ser His Gly Phe Val
                        70
43 Val Ile Thr Ile Asp Thr Ile Thr Thr Leu Asp Gln Pro Asp Ser Arg
                    85
                                        90
46 Ala Glu Gln Leu Asn Ala Ala Leu Asn His Met Ile Asn Arg Ala Ser
47
               100
49 Ser Thr Val Arg Ser Arg Ile Asp Ser Ser Arg Leu Ala Val Met Gly
                               120
52 His Ser Met Gly Gly Gly Thr Leu Arg Leu Ala Ser Gln Arg Pro
                           135
55 Asp Leu Lys Ala Ala Ile Pro Leu Thr Pro Trp His Leu Asn Lys Asn
                       150
                                           155
58 Trp Ser Ser Val Thr Val Pro Thr Leu Ile Ile Gly Ala Asp Leu Asp
                   165
                                       170
61 Thr Ile Ala Pro Val Ala Thr His Ala Lys Pro Phe Tyr Asn Ser Leu
               180
                                   185
64 Pro Ser Ser Ile Ser Lys Ala Tyr Leu Glu Leu Asp Gly Ala Thr His
                               200
                                                   205
```

RAW SEQUENCE LISTING DATE: 11/15/2004 PATENT APPLICATION: US/10/089,392A TIME: 13:53:32

Input Set : A:\00229806.txt

```
67 Phe Ala Pro Asn Ile Pro Asn Lys Ile Ile Gly Lys Tyr Ser Val Ala
       210
                           215
70 Trp Leu Lys Arg Phe Val Asp Asn Asp Thr Arg Tyr Thr Gln Phe Leu
                       230
                                           235
73 Cys Pro Gly Pro Arg Asp Gly Leu Phe Gly Glu Val Glu Glu Tyr Arg
                   245
                                       250
76 Ser Thr Cys Pro Phe
              260
80 <210> SEQ ID NO: 2
81 <211> LENGTH: 261
82 <212> TYPE: PRT
83 <213> ORGANISM: Streptomyces albus
85 <400> SEQUENCE: 2
87 Asp Asn Pro Tyr Glu Arg Gly Pro Ala Pro Thr Arg Ala Ser Ile Glu
88 1
90 Ala Pro Arg Gly Pro Tyr Ala Val Ser Gln Thr Ser Val Ser Ser Leu
93 Val Val Ser Gly Phe Gly Gly Gly Thr Ile Tyr Tyr Pro Thr Ser Thr
96 Gly Asp Gly Thr Phe Gly Ala Val Val Thr Pro Gly Phe Thr Ala
                           55
99 Thr Glu Ser Ser Met Ala Trp Leu Gly Pro Arg Leu Ala Ser Gln Gly
                        70
102 Phe Val Val Phe Thr Ile Asp Thr Leu Thr Thr Leu Asp Gln Pro Asp
                    85
                                        90
105 Ser Arg Gly Arg Gln Met Leu Ala Ala Leu Asp Tyr Leu Thr Glu Arg
                100
                                    105
108 Ser Ser Ala Arg Thr Arg Ile Asp Gly Thr Arg Leu Gly Val Ile Gly
            115
                                120
                                                    125
111 His Ser Met Gly Gly Gly Thr Leu Glu Ala Ala Lys Ser Arg Pro
                            135
114 Ser Leu Lys Ala Ala Ile Pro Leu Thr Pro Trp Asn Leu Asp Lys Thr
                        150
                                            155
117 Trp Pro Glu Val Thr Thr Pro Thr Leu Val Val Gly Ala Asp Gly Asp
                    165
                                        170
120 Thr Val Ala Pro Val Ala Thr His Ala Lys Pro Phe Tyr Ser Ser Leu
121
                180
                                    185
123 Pro Ser Ser Thr Asp Arg Ala Tyr Leu Glu Leu Asn Asn Ala Thr His
                                200
126 Phe Ala Pro Asn Leu Ser Asn Thr Thr Ile Ala Lys Tyr Ser Val Ser
                            215
129 Trp Leu Lys Arg Phe Ile Asp Asp Asp Thr Arg Tyr Glu Gln Phe Leu
                                            235
132 Cys Pro Leu Pro Val Pro Asp Arg Asp Ile Glu Glu Tyr Arg Gly Thr
                    245
                                        250
135 Cys Pro Leu Gly Gly
                260
139 <210> SEQ ID NO: 3
140 <211> LENGTH: 261
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,392A

DATE: 11/15/2004 TIME: 13:53:32

Input Set : A:\00229806.txt

141	<21	2> T	YPE:	PRT	i											
142	<21	3 > 0	RGAN	ISM:	Streptomyces sp. M11											
	<400> SEQUENCE:															
146	Ala	Asn	Pro	Tyr	Glu	Arg	Gly	Pro	Ala	Pro	Thr	Asn	Ala	Ser	Tle	Glu
147	1			-	5	_	-			10				001	15	014
149	Ala	Ser	Arg	Gly	Pro	Tyr	Ala	Thr	Ser		Thr	Ser	Val	Ser		Leu
150			_	20		•			25					30		шса
152	Val	Ala	Ser	Gly	Phe	Gly	Gly	Glv	Thr	Ile	Tvr	Tvr	Pro		Ser	Thr
153			35	_		-	-	40			-1 -	- 2 -	45			
155	Ala	Asp	Gly	Thr	Phe	Gly	Ala	Val	Val	Ile	Ser	Pro		Phe	Thr	Ala
156		50	_			-	55					60	1			
158	Tyr	Gln	Ser	Ser	Ile	Ala	Trp	Leu	Gly	Pro	Arq	Leu	Ala	Ser	Gln	Gly
159	65					70	_		-		75					80
161	Phe	Val	٧al	Phe	Thr	Ile	Asp	Thr	Asn	Thr	Thr	Leu	Asp	Gln	Pro	
162					85					90			•		95	-
164	Ser	Arg	Gly	Arg	Gln	Leu	Leu	Ser	Ala	Leu	Asp	Tyr	Leu	Thr	Gln	Arq
165				100					105					110		
167	Ser	Ser	Val	Arg	Thr	Arg	Val	Asp	Ala	Thr	Arg	Leu	Gly	Val	Met	Gly
168			115					120					125			
170	His	Ser	Met	Gly	Gly	Gly	Gly	Ser	Leu	Glu	Ala	Ala	Lys	Ser	Arg	Thr
171		130					135					140				
173	Ser	Leu	Lys	Ala	Ala	Ile	Pro	Leu	Thr	Gly	${\tt Trp}$	Asn	Thr	Asp	Lys	Thr
174	145					150					155					160
176	\mathtt{Trp}	Pro	Glu	Leu		Thr	Pro	Thr	Leu	Val	Val	Gly	Ala	Asp	Gly	Asp
177					165					170					175	
179	Thr	Val	Ala	Pro	Val	Ala	Thr	His	Ser	Lys	Pro	Phe	Tyr	Glu	Ser	Leu
180	_			180					185					190		
182	Pro	Gly		Leu	Asp	Lys	Ala		Leu	Glu	Leu	Arg	Gly	Ala	Ser	His
183	_,	_,	195	_				200					205			
185	Phe	Thr	Pro	Asn	Thr	Ser		Thr	Thr	Ile	Ala	Lys	Tyr	Ser	Ile	Ser
186	_	210	_	_			215					220				
188	Trp	Leu	ьуs	Arg	Phe		Asp	Ser	Asp	Thr		Tyr	Glu	Gln	Phe	Leu
189		D	~ 7	_	_	230	_	_			235					240
191	cys	Pro	тте	Pro		Pro	ser	Leu	Thr		Ala	Glu	Tyr	Arg		Thr
192	O	Dece	TT 2	m1	245					250					255	
	суя	Pro	нls		ser											
195				260												

VERIFICATION SUMMARY

DATE: 11/15/2004

PATENT APPLICATION: US/10/089,392A

TIME: 13:53:33

Input Set : A:\00229806.txt